

Appl. No. 10/523,619; Docket No. NL02 0709 US
Amdt. dated June 1, 2006
Response to Office Action of April 6, 2006

REMARKS/ARGUMENTS

The Office action indicates the disclosure lacks section headings under 37 CFR 1.77(b). Applicants respectfully decline the invitation to add headings. Applicants prefer not to add section headings, for consistency with the parent application. Such section headings are not statutorily required for filing a non-provisional patent application under 35 USC 111(a), but per 37 CFR 1.51(d) are only guidelines that are suggested for Applicants' use. They are not mandatory, and in fact when Rule 77 was amended in 1996 (61 FR 42790, Aug. 19, 1996), Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks, states in the Official Gazette:

"Section 1.77 is permissive rather than mandatory. ... 1.77 merely expresses the Office's preference for the arrangement of the application elements. The Office may advise an applicant that the application does not comply with the format set forth in 1.77, and suggest this format for the applicant's consideration; however, the Office will not require any application to comply with the format set forth in 1.77."
Miscellaneous Changes in Patent Practice, Response to comments 17 and 18 (Official Gazette, August 13, 1996) [Docket No: 950620162-6014-02] RIN 0651-AA75.

In the specification, the informalities indicated in the objections to the Specification have been addressed. Other areas in the Specification have been edited to put them in a better form.

The §112 Claim Rejection

Claim 7 has been reviewed and Applicant cannot find where the "insufficient antecedent basis" lies. For convenience and clarity, Applicant has included the listing of claims as they stand incorporating the edits of papers previously submitted in connection with the present application.

The §102 Claim Rejections

Claims 1 and 6 are rejected under 35 U.S.C. §102(b) as being anticipated by *Hayes et al.* (US Patent 6,529,749 hereinafter, *Hayes*).

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With respect to *Hayes*, the Office Action citation does not correspond to Applicant's claimed features cited in claims 1 and 6. In claim 1, the features of a "first switch element S3" and a "second switch element S2" as asserted by the Office Action are not present. Furthermore, unlike *Hayes*, Applicant's antenna structure is a simple structure to obtain a directional radiation pattern for two frequencies of operation.

In that Applicant's claimed features do not correspond with those of *Hayes*, Applicant request that the §102 rejection be withdrawn.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. §102(b) as being anticipated by *Thiel et al.* (US Patent 6,034,638 hereinafter, *Thiel*).

The structure, for example, depicted by *Thiel* is unlike that outlined in Applicant's invention. *Thiel* illustrates in FIG. 3 that the multiple antennas are arranged about a "cylindrical" space. In contrast, Applicant's antenna arrangement of FIG. 2 includes "two antenna arrangements with comprising two mono-pole antennas each (Specification, page 6, lines 3-4)." Furthermore, the radiation pattern of Applicant's invention would differ from that of *Thiel*. Refer to FIGS. 4-6.

In that Applicant's claimed features do not correspond with those of *Thiel*, Applicant request that the §102 rejection be withdrawn.

Consequently, neither *Hayes* nor *Thiel* anticipate Applicant's invention.

Per MPEP §2131:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently describe in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628,631,2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

In view of the foregoing, Applicant respectfully asserts that the rejections under 35 USC 102(b) of are improper and should be withdrawn.

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The §103 Claim Rejection

Claims 5 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Thiel*. Applicant respectfully traverses the rejection.

The Office Action concedes that *Thiel* differs from Applicant's claimed invention because it does not disclose the electrical distance between the antenna elements. However, the Office Action's assertion that the arrangement is "an obvious design" choice is not supported.

Applicant has addressed a long-felt need of "using quarter wavelength antenna elements" so that "a compact antenna arrangement is achieved (Specification, page 2 lines 19-20)." Furthermore, "it was found that by placing the two antenna elements at a distance of approximately one quarter wavelength of the highest of the first and second operational frequency optimal reflection and direction was obtained (Specification, page 2, lines 24-26)." The Applicant had discovered a way to improve the reflection and direction of the two antenna elements. In addition, Applicant has found that "the first antenna arrangement and the second antenna arrangement are arranged such that the antenna elements are all comprised in a plane, that the antenna elements of each antenna arrangement are parallel to the other antenna elements in the antenna arrangement and that the first antenna arrangement is placed at an angle between 20 and 60 degrees to the second antenna arrangement (Specification, page 3, paragraph 4)." By placing the antenna arrangements and the antenna elements in this position the theta components, ie. horizontal polarization of the antenna, are directed in the horizontal plane. (Specification, page 3, paragraph 5)."

The historic case of *Eibel Process Com. V. Minnesota & Ontario Paper Co.* 261 US 45 (1923) established the rule that the discovery of the source of a problem may result in a patentable invention despite the fact that the solution would have been obvious once the source of the problem was discovered. Further, "a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the

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source of the problem is identified. This is part of the "subject matter as a whole" which should be always be considered in determining the obviousness of an invention under 35 USC §103 (*In re Spinnoble*, 405 F. 2d 578, 160USPQ 237 (CCPA 1969))."

Therefore, Applicant requests that the §103 rejections be withdrawn.

Applicant believes he has addressed all of the Examiner's concerns. The claims as presented are allowable.

The Commissioner is hereby requested and authorized pursuant to 37 CFR §1.136(a)(3), to treat any concurrent or future reply in this application requiring a petition for extension of time for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. Please charge any additional fees which may now or in the future be required in this application, including extension of time fees, but excluding the issue fee unless explicitly requested to do so, and credit any overpayment, to Deposit Account No. 14-1270.

Respectfully submitted,

Date: 01-JUN-2006

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